

RESIDENTIAL ROOF HEADERS WITH SYMMETRICAL TRIANGULAR LOAD (L/180)

California Building Code 2007 Edition (CBC), NDS 2005

Lumber: Douglas Fir-Larch, Surfaced-Dry condition (19% maximum moisture content).

Design Criteria Strength: Based on allowable bending stresses and shear stresses for Dead + Live loads.
25% Stress increase included due to duration of load.

Deflection: Based on L/180 for Dead plus Live load.



SIZES	GRADE	ALLOWABLE SYMMETRICAL TRIANGULAR LOAD - W (Lbs)														
		LENGTH (FEET) THE MEMBER SPANS														
W x D		4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
4 x 4	SS	2512	1528	859	550	382	281	215	NOTES 1. Horizontal shear controls design in area left of solid line. (<i>Bold Italics</i>) 2. Deflection controls design in area right of double line. (Bold) 3. Bending stress controls design in area between solid and double lines.							
4 x 4	#1+	2010	1340	814	521	362	266	204								
4 x 4	#1	1675	1117	769	492	342	251	192								
4 x 4	#2	1507	1005	724	463	322	236	181								
4 x 6	SS	4876	3584	2688	2134	1482	1089	834	LENGTH (FEET) THE MEMBER SPANS 18 20 22 24 26 28 30 32							
4 x 6	#1+	4301	2867	2151	1720	1404	1032	790								
4 x 6	#1	3584	2390	1792	1434	1195	974	746								
4 x 6	#2	3226	2151	1613	1290	1075	917	702								
4 x 8	SS	6702	6228	4671	3737	3114	2494	1910	1509	1222	1010	849	723	624	543	477
4 x 8	#1+	6702	4982	3737	2989	2491	2135	1809	1429	1158	957	804	685	591	515	452
4 x 8	#1	6228	4152	3114	2491	2076	1779	1557	1350	1093	904	759	647	558	486	427
4 x 8	#2	5605	3737	2803	2242	1868	1602	1401	1246	1029	851	715	609	525	457	402
4 x 10	SS	9126	8319	7019	5615	4679	4011	3509	3119	2538	2098	1763	1502	1295	1128	991
4 x 10	#1+	9126	7487	5615	4492	3743	3209	2808	2496	2246	1987	1670	1423	1227	1069	939
4 x 10	#1	9126	6239	4679	3743	3119	2674	2340	2080	1872	1702	1560	1344	1159	1009	887
4 x 10	#2	8423	5615	4211	3369	2808	2406	2106	1872	1685	1531	1404	1265	1091	950	835
4 x 12	SS	12111	10473	9517	7614	6345	5438	4758	4230	3807	3461	3171	2702	2330	2029	1784
4 x 12	#1+	12111	10151	7614	6091	5076	4351	3807	3384	3045	2769	2538	2343	2175	1923	1690
4 x 12	#1	12111	8459	6345	5076	4230	3625	3172	2820	2538	2307	2115	1952	1813	1692	1586
4 x 12	#2	11420	7614	5710	4568	3807	3263	2855	2538	2284	2076	1903	1757	1631	1523	1428
4 x 14	SS	16010	12874	12001	9601	8001	6858	6001	5334	4801	4364	4000	3693	3429	3200	2914
4 x 14	#1+	16010	12801	9601	7681	6401	5486	4801	4267	3840	3491	3200	2954	2743	2560	2400
4 x 14	#1	16002	10668	8001	6401	5334	4572	4000	3556	3200	2909	2667	2462	2286	2134	2000
4 x 14	#2	14402	9601	7201	5761	4801	4115	3600	3200	2880	2618	2400	2216	2057	1920	1800
4 x 16	SS	21485	15611	14248	12718	10599	9084	7949	7066	6359	5781	5299	4892	4542	4239	3974
4 x 16	#1+	21485	15611	12718	10175	8479	7268	6359	5653	5087	4625	4239	3913	3634	3392	3180
4 x 16	#1	21197	14131	10599	8479	7066	6056	5299	4710	4239	3854	3533	3261	3028	2826	2650
4 x 16	#2	19077	12718	9539	7631	6359	5451	4769	4239	3815	3469	3180	2935	2725	2544	2385
6 x 6	SS	6499	4333	3250	2600	1961	1441	1103	872	706	584	490	418	360	314	276
6 x 6	#1	5199	3466	2600	2080	1733	1441	1103	872	706	584	490	418	360	314	276
6 x 8	SS	10362	8057	6042	4834	4028	3453	2797	2210	1790	1480	1243	1059	913	796	699
6 x 8	#1	9668	6445	4834	3867	3223	2762	2417	2148	1790	1480	1243	1059	913	796	699
6 x 10	SS	14044	12730	10341	8273	6894	5909	5171	4492	3639	3007	2527	2153	1856	1617	1421
6 x 10	#1	14044	11634	8725	6980	5817	4986	4363	3878	3490	3007	2527	2153	1856	1617	1421
6 x 12	SS	18609	15966	15154	12123	10102	8659	7577	6735	6061	5334	4482	3819	3293	2869	2521
6 x 12	#1	18609	15966	12786	10229	8524	7306	6393	5683	5114	4649	4262	3819	3293	2869	2521
6 x 14	SS	24620	19584	18276	16487	13739	11776	10304	9159	8243	7494	6870	6178	5327	4641	4079
6 x 14	#1	24620	19584	17385	13908	11590	9934	8692	7727	6954	6322	5795	5349	4967	4636	4079
6 x 16	SS	33151	23721	21573	20705	17836	15288	13377	11891	10702	9729	8918	8232	7644	7024	6173
6 x 16	#1	33151	23721	21573	18059	15049	12899	11287	10033	9029	8209	7524	6946	6450	6020	5643
6 x 18	SS	46586	28567	25161	23845	22429	19225	16822	14953	13457	12234	11215	10352	9612	8972	8411
6 x 18	#1	46586	28567	25161	22704	18920	16217	14190	12613	11352	10320	9460	8732	8109	7568	7095
6 x 20	SS	71534	34404	29115	27181	26234	23575	20628	18336	16502	15002	13752	12694	11787	11002	10314
6 x 20	#1	69658	34404	29115	27181	23219	19902	17415	15480	13932	12665	11610	10717	9951	9288	8707
8 x 8	SS	14130	10986	8240	6592	5493	4708	3815	3014	2441	2018	1695	1445	1246	1085	954
8 x 8	#1	13184	8789	6592	5273	4395	3767	3296	2930	2441	2018	1695	1445	1246	1085	954
8 x 10	SS	19151	17359	13220	10576	8813	7554	6610	5876	4962	4101	3446	2936	2531	2205	1938
8 x 10	#1	19151	14102	10576	8461	7051	6044	5288	4701	4230	3846	3446	2936	2531	2205	1938
8 x 12	SS	25377	21772	20664	16531	13776	11808	10332	9184	8266	7274	6112	5208	4490	3912	3438
8 x 12	#1	25377	21772	17435	13948	11624	9963	8718	7749	6974	6340	5812	5208	4490	3912	3438
8 x 14	SS	33573	26705	24921	22482	18735	16059	14051	12490	11241	10219	9368	8425	7264	6328	5562
8 x 14	#1	33573	26705	23707	18965	15804	13547	11853	10536	9483	8621	7902	7294	6773	6322	5562
8 x 16	SS	45205	32346	29418	28234	24322	20848	18242	16215	14593	13267	12161	11226	10424	9578	8418
8 x 16	#1	45205	32346	29418	24626	20521	17590	15391	13681	12313	11193	10261	9471	8795	8209	7696
8 x 18	SS	63526	38955	34311	32516	30585	26216	22939	20390	18351	16683	15293	14116	13108	12234	11469
8 x 18	#1	63526	38955	34311	30960	25800	22114	19350	17200	15480	14073	12900	11908	11057	10320	9675
8 x 20	SS	97546	46915	39703	37065	35774	32147	28129	25003	22503	20457	18753	17310	16074	15002	14064
8 x 20	#1	94988	46915	39703	37065	31663	27139	23747	21108	18998	17271	15831	14614	13570	12665	11874
8 x 22	SS	135335	56814	45724	41935	40128	38667	33834	30074	27067	24606	22556	20821	19334	18045	16917
8 x 22	#1	114208	56814	45724	41935	38069	32631	28552	25380	22842	20765	19035	17571	16315	15228	14276
8 x 24	SS	160066	69614	52545	47189	44713	43342	40017	35570	32013	29103	26678	24626	22867	21342	20008
8 x 24	#1	135042	69614	52545	47189	44713	38584	33761	30009	27008	24553	22507	20776	19292	18006	16880

**DIVISION OF BUILDING AND SAFETY
COUNTY OF VENTURA**

Jim MacDonald

BUILDING OFFICIAL _____

B & S
STD **B-75**

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